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Dialectics and the Measure of the World

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Post-structuralist Dialectics?

This is an intriguing set of papers, and they open up a range of issues concerning the contemporary, geographical, understanding of dialectics. In many ways the terrain on which they operate is the ground between Marxism and post-structuralism. Eric Sheppard, for instance, suggests that radical geography was Marxist inflected, but that critical geography has been influenced by post-structuralism and feminism. The question that remains is to what extent the former has been eclipsed, lost, in the transition to the former. One of the ways in which post-structuralism has criticised Marxism, as these papers illustrate, concerns the question of the dialectic. This is not the only object of critique, certainly, but many post-structuralist accounts have taken issue with the supposedly linear, teleological and ageographical aspects of the classical dialectic.²

These papers take a rather different approach. Although they do not agree on everything, some key themes can be pointed to. Rather than try to offer a post-structuralism without the

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² For a discussion of dialectics in their more theoretical sense, in relation to Lefebvre, see Elden 2004, especially Chapter One. For a broader discussion, see Rose 1984.

dialectic, they instead try to illustrate how many so-called post-structuralist thinkers have a profoundly ambivalent relation to the dialectic: one that is not uncritical, but nor one that evidences a wholesale rejection. For Sheppard, when faced with post-structuralist critiques of dialectics, the response is to offer the Hegelian dialectic up as a sacrifice in order to retain and maintain something other in the dialectic, which for him is a geographical resonance, that can bear fruitful comparison with Deleuze and Guattari. Chris Collinge's essay, "Positions Without Negations?" operates within the domain opened up by Lefebvre and Harvey's introduction of Hegelian and Marxist ideas, which he thinks through in relation to scale. Collinge suggests that Derrida's work on contingency can be helpful in broadening the reach of the dialectic, since it indicates "a conflict of forces rather than a contradiction of meanings, a conflict that does not lead towards teleological completion but towards a deferral of completion in the endless displacement from one term to the next" (2008: 5). This is illustrated by thinking through Neil Smith's *Uneven Development* (1984). Gidwani offers a rather different account, but he too wants to expose the problems of the Hegelian dialectic in order to pursue more progressive political and theoretical aims. His immanent reading and critique of Hegel is designed to show what other possibilities lie obscured in his thought but also what political problems are at stake. He does this through an engagement with Frantz Fanon, whom he describes as "an acute and disloyal reader" of Hegel (Gidwani 2008: 1, 7). The fulcrum is a reading of the famous master-slave or 'lord-bondsman' dialectic in *The Phenomenology of Spirit*.

While Gidwani's reading shows a particular fidelity to his texts, not all of the contributions operate in that register. Sheppard explicitly wants to "provocatively identify and make space for alternative readings", which he identifies—perhaps anticipating critical responses—as "a

smash-and-grab philosophy” (Sheppard 2008: 4). Drawing on Bhaskar’s *Dialectic: The Pulse of Freedom* (1993) he shows how the dialectic exceeds and includes Hegel, often wrongly identified as the privileged site of dialectical thought, and unfairly characterized as “thesis/antithesis/synthesis” (as he is here, in passing – Sheppard 2008: 5).³ There are a number of issues in this presentation, but mindful of the ‘smash-and-grab’ defence, I will note only one. This is the use of Roy Bhaskar as the interpretative schema for dialectical thought. While this is indeed a remarkable book, one of the notable things about it is that Bhaskar is trying to reconcile a Marxist dialectical approach with his own thought, thus arguing that dialectical relations are themselves real, rather than simply objects of thought. The critique of Hegel on the dialectic is as much for its idealism as its construction and teleology, something that is acknowledged in part (Sheppard 2008: 9). But this goes beyond Marx’s own materialist critique, and bears on Bhaskar’s own critical realism. We should never forget that short-cuts do not just get us from A to B quicker, but they take us through different terrain *en route*.

Sheppard’s commentary though does have the important merit of trying to open up the ground upon which some of geography’s less-than-edifying recent debates have taken place. He refers to the ‘What’s Left’ spat which begun in the pages of *Antipode*, and the ‘scale vs. flat ontology’ discussions in *Transactions of the Institute of British Geographers*. Sheppard’s attempt to show that the different positions in these debates actually share some barely-acknowledged commonalities is helpful, and his attempt to show how “dialectics and post-structuralism can be mutually constitutive” (Sheppard 2008: 12) is genuinely illuminating.

³ Ruddick’s distance from this reading is more appropriate (2008: 3-4).

The tensions between the two need to be worked through rather than set up as opposed: a dialectical way of thinking and working through difference. Ruddick's intention is remarkably similar, cautioning that geographical thought should not try to institute simple opposites, and instead recognise points of convergence alongside divergence. This is what she calls "a dialectics of the positive – understanding their encounter, not as the negative of each other, but reading each in terms of their own adequate truth" (Ruddick 2008: 1).

Many of the other papers operate within this remit. Anna Secor, for instance, in "Žižek's Dialectics of Difference and the Problem of Space", tries to show how Žižek provides the possibility of "an open dialectic without synthesis or totality" (Secor 2008: 1). Her focus is on the notion of 'the parallax view' (Žižek 2006) where conflicting views on things do not need to be reconciled, adjudicated between, or disproved, but can all be correct at the same time if we see them from different perspectives. To take an example of this in Žižek, albeit one not cited by Secor herself:

"The three 'true' reasons for the attack on Iraq (ideological belief in Western democracy – Bush's 'democracy is God's gift to humanity'; the assertion of US hegemony in the new world order; economic interests – oil) should be treated like a 'parallax': it is not that one is the 'truth' of the others; the 'truth' is, rather, the very shift of perspective between them2 (Žižek 2004: 6).

Once again Deleuze is a stage along the way to allow the possibility of Žižek's insights to come through, a productive tension that Secor calls a "dance" (Secor 2008: 2), but which is more easily reconciled when we realize that it is Žižek's Deleuze—that is an already more

amenable figure—that is at stake here (Secor 2008: 3; see Žižek 2003). Žižek, we are told, offers “a dialectics that employs no binary logic; there is no “Other” of the One, only a multitude of attempts to fill in for the lack of the Other. It eschews the notion of a mediated unity, a synthetic whole or All” (Secor 2008: 6).

Secor uses this to contest David Harvey’s account of the war in Iraq as illustrating the tensions between the logics of capital and territory (2003), a conceptual move he makes building upon Giovanni Arrighi (1994). For Harvey there are two contrasting elements within capitalist imperialism: on the one hand its basis in state politics and on the other the flow of capital between and beyond such strict territorial boundaries. Capital usually operates beyond territorial strategies. While usually this is without explicit conflict, at times the logic of capital dictates a territorial violation. For Secor, following Žižek, “the war itself arises as the symptom of the ways in which the imperatives of neoliberal globalization are irreconcilable with the territorial and military mandate of the imperial state... The war on Iraq has not married territorial and economic logics; rather, it serves to paper over their complete lack of relation” (Secor 2008: 8). This attempt to stress the “between/within” of the parallax gap is conceptually interesting, but politically disabling. How does recognition of this irreconcilability enable a response? What, beyond a mere statement of the issue, are we to make of this? The terrible political problems of Žižek’s recent book *In Defence of Lost Causes* (2008b) seem to be a symptom of this malaise (see also 2008a).

Marcus Doel’s “Dialectics Revisited: Reality Discharged” works in a similar register to Secor’s, and similarly operates within the domain Sheppard sought to open up. It uses Derridean deconstruction and post-structuralism more generally to rethink the notion of

reality, or the Real. It advances the challenging idea that reality may actually be *discharged* – that is, without fundamental or essential polarization, agonism or conflict. Rather than having positive or negative charge, Doel asks what would happen if we thought it “in terms of blankness? What if the Real were Earthed?” (Doel 2008: 4). Indeed his conclusion is that “the Open is bereft of charge, and for that very reason, dialectics has no purchase whatsoever on the Real” (Doel 2008: 19). These provocations are somewhat eclipsed by the mode of expression at play here, with allusion and illusion—the magician’s rabbits—giving way to comments on formal dialectical logic. What is intriguing here is that the readings on dialectics are not through reference to Hegel or Marx, or even to Marxist commentators, but to writers such as Derrida and Lyotard whose conclusions allow Doel to pursue his claim that

“The Real is Open: nothing more, nothing less. Hereinafter, it will be necessary for geographers to content themselves with an Open Reality bereft of charge. Space *takes* place, and neither the plus nor the minus have any purchase on any situation whatsoever” (Doel 2008: 19).

Dialectics as ‘Baggy Clothes’

Doel earlier cites Deleuze on dialectics to reinforce this point. In the book *Bergsonism*, Deleuze suggests that too much abstract thought works with concepts that “like baggy clothes, are much too big” (1991: 44; see Doel 2008: 14). This, Doel tells us, is “why Deleuze will have no truck with the dialectic” (2008: 14). “The combination of opposites tells us nothing: it forms a net so slack that everything slips through” (Deleuze 1991: 44–45). Henri Bergson himself had argued that dialectics do not deal with the world as it is, in all its

complexity. He suggested that they are “too large... not tailored to the measurements of the reality in which we live” (1963: 1/1254; cited in Mackay 2007: 7). While this certainly appears like a rejection of dialectical thinking in its entirety, thinking through the nature of the objection is illuminating. While still problematic, Deleuze’s complaint is certainly a more useful formulation than the suggestion that ‘eagles don’t catch flies’” (see Woodward et. al. 2007). It is useful because it opens up the question of what precisely it is that dialectics are supposedly inadequate to, what they fail to grasp.

The question it opens up is whether there is an issue of scale: dialectics is too big, and the world more complicated and shot through with detail and particularity. This is what Bergson seems to be invoking with the notion of tailoring our concepts to “measurements of the reality in which we live”. Yet it is not at all clear that Deleuze or Bergson would be content with what might be called a micro-dialectics, operating with finer particles. There are flaws with the process as much as the design. But shared both by dialectics and this critique are a number of assumptions. Three key issues or questions arise from this.

1. The first is the question of how well dialectics enable us to deal with the world – as it is, in its complexity, with its measurements, in its reality.
2. But we should also ask whether this is something we actually want – do we know how the world *is*, its reality; and is its complexity something we want to *measure*?
3. Or, alternatively, can this work help us to understand the problems of a static, measurable world, one that can be reduced to the claim that it is fundamentally knowable? This raises some important questions about the nature of measure more generally.

The relation of dialectics to the world is perhaps most fully worked through in Engels' book *Dialectics of Nature* (1940). Yet this book, which was one of the key inspirations for the dialectical materialism, or 'diamat,' of the officially sanctioned philosophy of Marxist-Leninism, diverges from Marx himself. It is important to remember that Marx never actually used the words 'dialectical materialism', nor did he follow up the plan he outlined to Engels of writing "two or three printer's sheets [of about 16 pages each]" on the dialectical methodology (Marx and Engels 1983: 249). Lenin remarks in his *Philosophical Notebooks* that Marx may not have left us with a *Logic* of his own, on the model of Hegel, but he did leave the *logic* of *Capital* (1963: 361). While later versions of 'Marxism' supplemented it with extra elements--Engels, Lenin, Kautsky and others--the issue is whether they were developments within its system or changes to it.

The question of materiality is another key concern here. Materiality and the new geographies of it has received a good deal of attention recently (see, for example, Anderson and Tolia Kelly eds. 2004). This is a materiality that goes beyond mere materialism, or, at least, crude mechanism. Lefebvre once remarked that a Marxist dialectician would prefer an "intelligent idealism" to a "stupid materialism" (1960: 17), which remains sound advice. Nonetheless the way that materiality matters to dialectics was not always clear in these papers. For although Marx did not use the term 'dialectical materialism', he did advocate a historical materialism. For David Harvey and others the aim of a Marxist geography has been to introduce another term into this, producing a 'historical-and-geographical materialism' – or, perhaps better than

‘producing’, making obvious what was previously neglected.⁴ Yet while Harvey remains attentive to the relation between history and geography, demonstrating the benefits of this, for example, in his *A Brief History of Neoliberalism* (2005), others do not always follow this lead.⁵ The question of history and, in particular, the history of ideas, seems to me to be one of the key issues in theoretical work in geography today, perhaps even more when historical materialist—dialectical or not—accounts are offered.

One of the crucial questions that follows from all this is whether dialectics is a way of understanding nature and the material world, or whether we think that the world operates dialectically in itself, and that this is why dialectics enables an understanding. It is this question that I want to pursue here, by looking at two nondialectical materialist thinkers, the French philosophers Alain Badiou and Quentin Meillassoux. Thinking through their work explicitly confronts the question of mathematics and that of the world.

The Return of Mathematics: A Rejection of Dialectics?

It seems notable that mathematics and its relation to philosophy is making something of a return in human geography, and yet not as a straight-forward rerun of the quantitative revolution. Some of this is in terms of an interrogation of the wider issues of calculation – the geography of mathematics, rather than the mathematics of geography (see, for example,

⁴ The classic text for this is Harvey 1982.

⁵ Another successful proponent of this approach would be Neil Smith, in 2005, and, especially, 2003.

the special issues of key geography journals: Philo ed. 1998; Barnes and Hannah eds. 2001a, 2001b; Crampton and Elden eds. 2006).

Yet there is also something rather different happening. Sheppard notes that, “notwithstanding tendencies among ‘critical’ human geographers to dismiss quantitative approaches as tainted by positivism and neoclassical economics, the domains of mathematics associated with nonlinear and complex systems have turned out to be pertinent for dialectical, postmodern and assemblage ontologies” (Sheppard 2008: 14; see Bergmann, Sheppard, and Plummer, forthcoming). Martin Jones’ important work on “phase space” (2009), working through insights in Henri Poincaré, is another symptom of this engagement. In her paper Susan Ruddick raises the issue of the relation between mathematics and metaphysics, two modes of thought she claims that seventeenth century natural philosophy did not strictly distinguish (2008: 9). She illustrates this through a careful reading of Spinoza against Hegel’s (mis)interpretation, inspired by Pierre Macherey’s *Hegel on Spinoza* (Ruddick 2008; Macherey 1977). Spinoza’s two non-concentric circles are given as a model of “how the infinite expresses itself fully in the finite as a positivity” (Ruddick 2008: 8).

While Barbara Hooper’s paper operates in a rather different register, with its careful excavation of the Greek heritage of dialectics, it too invokes the question of mathematics. In this case it raises the important issue of the relation of mathematics to bodies. She cites Jacob Klein’s important work, *Greek Mathematical Thought and the Origin of Algebra*, noting that “we first acquire the ‘art of number’ (*arithmetike*) in our ‘intercourse with objects of daily life’” (Klein 1992: 18; Hooper 2008: 14). She goes on to suggest that number is a “form of ‘ontological mathematics’” (Hooper 2008: 14). This is close to Badiou’s claim that ontology

is mathematics: a question that needs to be interrogated textually, politically and theoretically. Indeed I would suggest that the growing interest in Badiou within human geography is perhaps the most significant example of this mathematical trend. While Badiou was only mentioned briefly by Doel and Ruddick in this collection of papers (Doel 2008: 18, 19; Ruddick 2008: 1, 2), he is beginning to receive attention within geography more widely (see Dewsbury 2007; Saldanha 2007; Doel 2009).⁶

The interest in these issues, and in Badiou in particular, invites questions of the capacity, complexity and complicity of mathematics. What can mathematics do, and in particular what does this embrace of number, calculation, geometry and other branches of mathematics, such as set theory, allow us to do that we could not otherwise? How does this actually sit in terms of the appropriation of complex thinkers? And, most troublingly, what does this embrace of Badiou buy into, and are we aware of and willing to accept its associations?

The reason for there being some caution concerning the appropriation of Badiou is, in part, because of a particular way in which he is being read. This goes back to the question of easy appropriation and eliding of differences. This can either be through a cursory use of the theoretical works, or a utilisation of the more explicitly political works, such as *Polemics* (2006c) or *The Century* (2007) without relating them to their essential context in the arguments of his more theoretical works. Badiou's major work *L'être et l'événement* (1988) is

⁶ A forthcoming issue of *Environment and Planning D: Society and Space* contains a theme section on Badiou's work, including "Being and Spatialization: An interview with Alain Badiou by Marios Constantinou and Norman Madarasz".

one of the most formidably difficult texts of recent times, one that bears comparison of complexity with works of Kant, Hegel and Heidegger. The recent English translation *Being and Event* (2005a) confirmed impressions that it was a matter of difficulty of content rather than of expression. Its second volume, *Logiques du monde* (2006a), develops and complicates many of its claims. Let us be cautious about it and not make hasty use of his work.

The interest in Badiou by theoretically minded geographers seems to me to be problematic for a number of reasons, but not least because what Badiou says seems to unravel many of the more carefully won victories of a rigorous, theoretically informed geography that does not aspire to be a spatial (or social) *science*. In particular, Badiou's use of mathematics opens up a number of tensions with thinkers such as Heidegger and Foucault, for instance, who are critical of the ways in which calculation dominates the modern epoch.⁷ Badiou's mathematics is, of course, a very different form of mathematics, based on set theory, but it still pushes philosophy into a subordinate position. Badiou declares that if "we abstract all presentative predicates little by little, we are left with the multiple, pure and simple... being-as-being, being as pure multiplicity – can be thought only through mathematics" (2001: 127).

Thus philosophy, for Badiou, must humble itself "before mathematics by acknowledging that mathematics is in effect the thinking of pure being, of being *qua* being" (1998: 38). If it does this, then "philosophy unburdens itself of what appears to be its highest responsibility: it asserts that it is not up to it to think being *qua* being" (1998: 55). Geographers have

⁷ I've tried to work through some problems in terms of Badiou and his engagement with Heidegger in the final pages of my book *Speaking Against Number* (Elden 2006).

struggled for a long time against the scientific pretensions of parts of the discipline, and so it would be particularly ironic if the ‘new theory’ brought this back at an even more fundamental level. Set theory is, even in complex forms, difficult to reconcile with the range of theoretical interests of contemporary geography. For Badiou expressly sees his project as concerning the relation between nature and number and, therefore, in part as a development and extension of Galileo’s claim that nature is written in “mathematical language” (2005a: 140). He is avowedly Cartesian, even as he posits a post-metaphysical “speculative materialism”. In addition, it is difficult to reconcile his work with any meaningful account of dialectics. When he talks about the dialectic at all, it is in a form that seems wilfully distorted. Badiou claims, for instance, that a “materialist dialectic” should be opposed to what he calls “democratic materialism”. Democratic materialism suggests that “there are only bodies and languages”; to which materialist dialectics replies that “there are only bodies and languages, except that there are truths” (2006a: 9, 12). For Badiou, the dialectic is the syntax or logic of the only/except, or more fully: “there are only... except that there are [*Il n’y a que... sinon qu’il il y a*]”. He claims that “this syntax indicates that it is a matter neither of an addition (truths as simple supplements of bodies and languages), nor of a synthesis (truths as the self-revelation of bodies grasped by languages). Truths exist as exceptions to what there is” (2006a: 12). In *Logiques du monde*, this is used as a basis for an incorporation of Descartes into his overall project, which he ties to the project of *Being and Event* which outlined an embrace of truths as “generic multiplicities” (2006a: 15).⁸ Dialectics quickly becomes didactics (2006a: 17).

⁸ Most of the opening pages of this book appear in English as 2006e. See also 2005b.

We can see the consequences of this mathematicisation of truth and existence perhaps particularly clearly in the work of Badiou's former student Quentin Meillassoux. In his recent book *Après la finitude*, prefaced and endorsed by Badiou, Meillassoux argues for a dismissal of a belief in 'correlationism' (2006: 18). Correlationism is described as the thesis that things we observe are dependent on the observer in some fundamental ways, or more fundamentally, that humans and the world coexist. There is a necessary correlation between what is observed and that which observes. Subjectivity and objectivity cannot be thought independently (2006: 18-19). One way in which this is stated is Heidegger's notion of being-in-the-world. Not a world that first exists, and then has beings in it; nor a being who exists and then exists in the world; but an essential interrelation between them. Correlationism does not deny an absolute reality, but recognises that it is always mediated for us through the perception of it. This a model of knowledge that can be traced back to Kant, and then permeates the continental European tradition which produces so many of the thinkers geographers have found so influential. More broadly it underpins attempts to recognise a human element in a material ontology. The contemporary critique of representation within geography can be understood as part of this movement of thought. Correlationism is neither an atheism or a religious perspective, but an agnostic one: the only world that exists for us is the world as it is known to us. It thus differs from the 'Galilean-Cartesian-Newtonian-Darwinian' view that science can tell us about the world as it actually is (see Milbank 2007).

Meillassoux takes one particular example to challenge the problems of this way of thinking. These are what he calls arche-fossils, radioactive traces of what can be proven to have existed before there was anything that would have perceived that existence. The universe is 13.5 billion years old; the earth 4.45 billion; life on earth 3.5 billion; human origins a mere 2

million (2006: 24). While philosophers have claimed that this is “an unexpected new battlefield for continental thought” (Harman 2007: 104), in a sense this is a geologic or physical geographical challenge to human geography. There is a world of which we can have objective knowledge without their being any mediation between the knowledge and the observer, except at a several million year interval. While the explicit dating is meditated, the existence of these phenomena is not. Meillassoux is unimpressed with the response that there are many things that are unperceived that we still accept exist. For him this is a much more fundamental challenge than one that can be dismissed by the argument that manifestation always has absences or lacunae; rather these are things completely exterior to the range of manifestation. It is thus not a question of the finitude of perception, that is, its intrinsic limitations, but a problem prior to the advent of perception. As Brassier puts it, it is not therefore “merely a non-manifest gap or lacuna *in* manifestation; it is the lacuna *of* manifestation *tout court*” (2007: 25). Meillassoux suggests that correlationism, in all its variants, is a convenient way of avoiding having to account for the world as it is, prior to human access. In response it is tempting here to recall Heidegger’s riposte to Kant. Kant thought it a failure that we could not account for the existence of things outside of us without falling back on our own existence [*Dasein*]. Heidegger thought this distinction needed to be collapsed. The ‘scandal of philosophy’ is not that there has been a failure to provide a proof for the existence of the external world, but rather “that *such proofs are expected and attempted again and again*” (1962: 205).

Meillassoux closes his book with the thought that while Kant may have been awoken from his ‘dogmatic slumbers’ by reading Hume, perhaps today we need to be shaken from our straight-forward rendering of the world and its relation to the human, which he calls “our

correlationist slumbers” (2006: 178). Meillassoux, following Badiou, claims that mathematics describes the world as it was, in what he calls the ancestral sphere or realm, and as it is (2006: 16, 37, 158 and *passim*).⁹ Mathematics then is not a way of describing the world as it appears to us, but a mode of access to the world in itself. This is a mode of relation to the absolute, “reality in itself apart from any relation to humans” (Harman 2007: 104). This trajectory of thought is, therefore, a thorough going critique of the critique of representation. Meillassoux’s claim is simply stated: “... everything concerning the object that can be formulated in mathematical terms can be rightly conceived as properties of the object in itself” (2006: 16). He takes the set theory elaborated by Badiou and the analysis of probability of Vernes (1982) to begin to describe this (2006: 130-1; see also Meillassoux 2004). He suggests that this means that there is now a *certainty* that there is no causal necessity. Whereas previous claims have simply been sceptical about this, now this can be stated absolutely. While apparently contradictory, the only thing that is necessary is that there is no necessity; hence his claim that contingency is necessary. Thus the title of his book – *After Finitude: An Essay on the Necessity of Contingency*. As Badiou puts it, Meillassoux “establishes that only a sole thing is absolutely necessary: that the laws of nature are contingent” (2006b: 10). That contingency can be analysed mathematically. As Harman puts it: “the essential criteria of all mathematical statements will be transformed into necessary conditions of the contingency of every being” (2007: 108).

⁹ As Harman notes, “the ancestral realm in his work still functions solely as a mechanism for absolutizing the correlational circle: indeed, his method of obtaining the absolute arises directly from a radicalization of the correlational predicament itself” (2007: 116).

While the charge is powerful and the case he makes for their being a problem compelling, the consequences of his solution would, in their mathematical bias, unravel much of what passes for theorizing in contemporary human geography. Badiou sees Meillassoux's work as an entirely complicit development of his work, even as he accords it a stature and importance of its own (see 2006b; and particularly 2006a: 129, 589; 2006d: 17). Taking on Badiou may force some uncomfortable liaisons. Meillassoux himself has noted that a reader can agree with the critique of correlationism without having to accept his own solution.¹⁰ It would be possible, for instance, to have grave doubts about the claim that knowledge is always filtered through human experience without thinking that mathematics escapes that mediation.¹¹ But it is the solution, rather than simply the critique, that Badiou endorses. Those invoking the name of Badiou need to be clear about whether they embrace the mathematical aspects of his work, or whether they contest them. If the latter, then the onus is on them to show how the politics or whatever else they find worthwhile can be separated from the ontology. This is not a move that Badiou would willingly concede, and his own writings, along with those of Meillassoux, illustrate the very real challenges this provides. We should not assume that quite different thinkers can be reconciled without very real problems, tensions and negotiations.

¹⁰ Meillassoux, email to Graham Harman, 9 June 2006, cited in Harman 2007: 117 n. 4.

¹¹ For a more fully worked through critique, which takes issue both with the interpretation of Kant and the consequences drawn from it, see Kerslake 2008, Chapter Four.

Concluding Thoughts

Meillassoux is explicit about his aim being, “that of building a materialism – or a realism – able to refute clearly the correlational circle in its simplest form, which is also the form which is the most difficult to fight with” (Meillassoux in Brassier et. al. 2007: 426). Three key points need to be stressed here: the equation of materialism and realism; the opposition of both to a critique of representation; and the non-dialectical, but rather mathematical, nature of this materialism or realism. Indeed, its temporal bias may have even deeper implications: largely aspatial, it depends on a non-dialectical linear teleology.

The return of mathematical ordering, not merely in terms of a way of understanding the world, but as a suggestion that this is actually how the world is, is one that should be contested. Only a recognition that mathematics appears suspect, and a rejection of some lineages in order to pursue others, such as that articulated by Ruddick where she suggests an “emergent rather than axiomatic” mathematics, can begin to escape this (2008: 9). Dialectical thinking, which was so important in the first turn away from quantitative geography, may be a viable alternative. While previously this was a turn toward Marxism, this is perhaps particularly the case today if this dialectics is reworked in conversation with post-structuralism. This is not an either/or choice: one could conceivably reject both mathematics and dialectics. But if we return to Bergson, and Deleuze’s gloss, perhaps we can see that dialectics, understood in some of the ways outlined in these papers, can help us to grasp the world in its becoming, with its complexities, yet without reducing it to the coordinates of a reality we are already predisposed to know how to measure. We should not take the limits of our grasp of the world as the limits of the world. Dialectics might help us to make sense of the world without thinking that nature operates dialectically.

The more powerful way of stating this is that dialectics might be one of the ways in which we can understand the problems of a world understood as measurable, one that can be reduced to the claim that it is fundamentally knowable. This seems to be at least part of the challenge of Meillassoux. But are we willing to embrace mathematics as the solution to this problem? Like Simonsen (2004), I am concerned about the resurrection of a particular geometrical form of argument, following in the wake of Deleuze's appropriations of Spinoza and Leibniz, and now Badiou. Can dialectics, perhaps reformulated, provide an alternative?

'Traditional' dialectics cannot remain unchanged, and to develop and supplement it is surely permissible. It may benefit, today as in the past, from the introduction of other ideas. This is one of Lefebvre's key insights, and something that is developed in these papers. The productive collision between post-structuralism and traditional dialectics, outlined by Sheppard and pursued in differing ways through most of the papers here is one way forward. Providing that this appropriation is not 'pick n' mix' theorizing, of course, and that it undertakes the careful and detailed work of reading and analyzing complex thinkers, this plurality is one of the more invigorating currents of contemporary geography. Anything less than an openness to change would, of course, be profoundly undialectical.

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